

REMARKS

In response to the Office Action mailed August 21, 2007, Claims 1-4 are pending and stand rejected. Claims 1-4 have been amended. Support for the amendments may be found generally throughout the specification and specifically within paragraphs 8, 10, 23, 28, and 40-58 inclusive. No new matter has been added by virtue of these amendments.

I. **In the Specification**

Applicants have amended the specification (paragraphs [0008] and [0010]) to incorporate Sequence ID NOs: 1 and 2 into the appropriate description of the specified figures (specifically Figures 2 and 4). Applicants have hereby also included an amendment/request asking for entry of substitute sequence listing into the application pursuant to 37 CFR 1.821-1.825.

Applicants have also amended the Abstract in accordance with the Examiner's suggestion with regard to the source species. Accordingly, Applicants respectfully request that the objection to the Abstract be withdrawn.

II. **Claim Rejections**

A. **35 USC 112, 2nd paragraph**

Claims 1-4 stand rejected by the Examiner under 35 USC 112, 2nd paragraph for indefiniteness with regard to the term "about" in Claims 1-3. Applicants respectfully traverse and overcome said rejection.

Applicants have amended Claims 1-3 to delete the term "about". Applicants respectfully submit that the Claims as amended are definite and that the 35 USC 112, 2nd paragraph rejection has been obviated. Accordingly, Applicants respectfully request that the 35 USC 112, 2nd paragraph rejection be withdrawn and that Claims 1-4 be placed into condition for allowance.

B. 35 USC 112, 1st paragraph, written description

Claims 1-4 stand rejected by the Examiner under 35 USC 112, 1st paragraph for lack of written description. Specifically, the Examiner contends 1) that the usage of the term "about" in Claims 1-3 is unclear as to the recited space group and unit cell dimensions in Claims 1-2 and the recited compositions of Claim 3; and 2) that the SEQ ID NO:1 should be disclosed in said claims. Applicants respectfully traverse and overcome said rejection.

Applicants have amended Claims 1-3 to delete the term "about". Applicants respectfully submit that the recited space group and unit cell dimensions are therefore clear and range-defined to adequately describe the crystal of Claims 1-2. Additionally, Applicants respectfully submit that the compositions of method Claim 3 (and dependent claim 4) are likewise clear and range-defined.

Applicants have also amended Claims 1-2 to reflect the specific Seq ID No for the glucokinase (Seq ID No:1). Applicants respectfully submit that Claims 1-2, as amended, are therefore clear and adequately-defined.

Applicants therefore respectfully request that the 35 USC 112, 1st paragraph rejection for written description be withdrawn and that Claims 1-4, as herein amended, be placed into condition for allowance.

C. 35 USC 112, 1st paragraph, enablement

Claims 1-4 stand rejected by the Examiner under 35 USC 112, 1st paragraph for lack of enablement. Specifically, the Examiner contends that the use of the term "about" in Claims 1-3 does not provide enablement for all the crystals of Claims 1-2 and methods preparation of Claims 3-4. The Examiner acknowledges enablement of crystals comprising Seq ID No:1 and enablement for methods of preparing crystals of

Seq ID No:1 with or without specified ligands (Examples 3-10 of the specification).
Applicants respectfully traverse and overcome said rejection.

As noted ante, Applicants have amended Claims 1-3 to delete the term "about" and to add the Seq ID NO:1 to said claims. The range of the unit cell dimensions and the specified polypeptide sequence are thus quite clear and adequately described and enabled by the specification to one of ordinary skill in the art. The specified unit cell dimensions and the specified polypeptide sequence thus would satisfy the Wands factors given the breadth of claims and the numerous (about 20) working examples involving different method conditions (at least 10) and differing ligands (or absence thereof). Applicants respectfully note the 8 examples of allosteric ligands in the specification would clearly give guidance to one of ordinary skill in the art regarding other species of allosteric ligands and thus Applicants respectfully submit that a genera of allosteric ligands has been demonstrated, described and enabled in conjunction with Seq ID No:1 in amended Claims 1 and 3-4.

Therefore, Applicants respectfully submit that Claims 1-4, as herein amended, are enabled by the specification. and respectfully request that the 35 USC 112 enablement rejection be hereby withdrawn and Claims 1-4, as amended, be placed into condition for allowance.

D. 35 USC 102(b)

Claims 3-4 stand rejected by the Examiner under 35 USC 102(b) as being anticipated by Aleshin et al (2000, Mar.3, J.Mol.Biol., Vol 296, pp 1001-1015). Specifically the Examiner contends that the term "about" in the ranges of compositions permits broad interpretation of said composition ranges and thus overlap regarding the concentration of compositions between Claims 3-4 and Aleshin (method page 1012). Applicants respectfully traverse and overcome said rejection.

Applicants, as noted ante, have amended Claim 3 (and dependent Claim 4 thereon) to delete the term "about" from the range of compositions used in said claimed methods. Therefore, the concentration limitations of Claims 3-4 are not anticipated by the method of Aleshin et al (for example, the range of DTT in Claims 3-4 does not overlap the specified concentration of DTT in Aleshin on page 1012, line 18).

Accordingly, Applicants respectfully submit that Claims 3-4 are not anticipated by Aleshin and that the rejection has been obviated. Applicants respectfully request that the 35 USC 102(b) rejection be therefore withdrawn and that Claims 3-4, as amended, be placed into condition for allowance.

No further fee is believed to be required in connection the filing of this Amendment. If any additional fees are deemed necessary, authorization is given to charge the amount of any such fee to Deposit Account No. 08-2525.

Respectfully submitted,



Attorney for Applicant(s)
Robert P. Hoag
(Reg. No. 39712)
340 Kingsland Street
Nutley, NJ 07110
Telephone (973) 235-4453
Telefax: (973) 235-2363

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